

THE BRAIN: UNDERSTANDING NEUROBIOLOGY THROUGH THE STUDY OF ADDICTION		
Texas Essential Knowledge and Skills for Science High School - Biology		
Lesson	Standard	Description
3	§112.43.c.2.A	Plan and implement investigative procedures including asking questions, formulating testable hypotheses, and selecting equipment and technology.
3	§112.43.c.2.B	Collect data and make measurements with precision.
3, 4, 5	§112.43.c.2.C	Organize, analyze, evaluate, make inferences, and predict trends from data.
3, 4, 5	§112.43.c.2.D	Communicate valid conclusions.
3, 4, 5	§112.43.c.3.A	Analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information.
4, 5	§112.43.c.3.C	Evaluate the impact of research on scientific thought, society, and the environment.
3, 4	§112.43.c.3.E	Evaluate models according to their adequacy in representing biological objects or events.
2	§112.43.c.4.B	Investigate and identify cellular processes including homeostasis, permeability, energy production, transportation of molecules, disposal of wastes, function of cellular parts, and synthesis of new molecules.
2	§112.43.c.5.B	Identify cell differentiation in the development of organisms.
4	§112.43.c.6.D	Compare genetic variations observed in plants and animals.
1, 2, 3, 4	§112.43.c.10.A	Interpret the functions of systems in organisms including circulatory, digestive, nervous, endocrine, reproductive, integumentary, skeletal, respiratory, muscular, excretory, and immune.
2, 3, 4, 5	§112.43.c.10.B	Compare the interrelationships of organ systems to each other and to the body as a whole.
2	§112.43.c.11.A	Identify and describe the relationships between internal feedback mechanisms in the maintenance of homeostasis.
1, 3, 4, 5	§112.43.c.11.B	Investigate and identify how organisms, including humans, respond to external stimuli.
Texas Essential Knowledge and Skills for Mathematics High School – Algebra I & Mathematical Models with Applications		
Lesson	Standard	Description
3, 4	§111.32.b.1.B	Gather and record data, or use data sets, to determine functional (systematic) relationships between quantities.
3, 4	§111.32.b.1.D	Represent relationships among quantities using concrete models, tables, graphs, diagrams, verbal descriptions, equations, and inequalities.

3, 4	§111.32.b.1.E	Interpret and make inferences from functional relationships.
3, 4	§111.32.b.2.C	Interpret situations in terms of given graphs or create situations that fit given graphs.
3, 4, 5	§111.32.b.2.D	In solving problems, collect and organize data, make and interpret scatterplots, and model, predict, and make decisions and critical judgments.
3, 4	§111.32.c.4.B	Solve systems of linear equations using concrete models, graphs, tables, and algebraic methods.
3, 4	§111.36.c.2.A	Interpret information from various graphs, including line graphs, bar graphs, circle graphs, histograms, and scatterplots to draw conclusions from the data.
3, 4	§111.36.c.3.B	Communicate methods used, analysis conducted, and conclusions drawn for a data-analysis project by written report, visual display, oral report, or multi-media presentation.

Texas Essential Knowledge and Skills for English Language Arts and Reading High School– English I & II

Lesson	Standard	Description
All lessons	§110.42.b.1.A	Write in a variety of forms using effective word choice, structure, and sentence forms with emphasis on organizing logical arguments with clearly related definitions, theses, and evidence; write persuasively; write to report and describe; and write poems, plays, and stories.
All lessons	§110.42.b.1.B	Write in a voice and style appropriate to audience and purpose.
All lessons	§110.42.b.1.C	Organize ideas in writing to ensure coherence, logical progression, and support for ideas.
All lessons	§110.42.b.4.A	Use writing to formulate questions, refine topics, and clarify ideas.
All lessons	§110.42.b.4.B	Use writing to discover, organize, and support what is known and what needs to be learned about a topic.
All lessons	§110.42.b.4.F	Compile written ideas and representations into reports, summaries, or other formats and draw conclusions.
All lessons	§110.42.b.6.A	Expand vocabulary through wide reading, listening, and discussing.
All lessons	§110.42.b.6.B	Rely on context to determine meanings of words and phrases such as figurative language, idioms, multiple meaning words, and technical vocabulary.
All lessons	§110.42.b.7.B	Draw upon his/her own background to provide connection to texts.
All lessons	§110.42.b.7.F	Identify main ideas and their supporting details.
All lessons	§110.42.b.7.G	Summarize texts.
All lessons	§110.42.b.7.H	Draw inferences such as conclusions, generalizations, and predictions and support them from text.
3	§110.42.b.13.A	Generate relevant, interesting, and researchable questions.
2, 3, 4	§110.42.b.13.C	Organize and convert information into different forms such as charts, graphs, and drawings.
All lessons	§110.42.b.13.E	Draw conclusions from information gathered.

All lessons	§110.43.b.1.A	Write in a variety of forms with an emphasis on persuasive forms such as logical argument and expression of opinion, personal forms such as response to literature, reflective essay, and autobiographical narrative, and literary forms such as poems, plays, and stories.
All lessons	§110.43.b.1.B	Write in a voice and a style appropriate to audience and purpose.
All lessons	§110.43.b.1.C	Organize ideas in writing to ensure coherence, logical progression, and support for ideas.
All lessons	§110.43.b.4.A	Use writing to formulate questions, refine topics, and clarify ideas.
All lessons	§110.43.b.4.B	Use writing to discover, organize, and support what is known and what needs to be learned about a topic.
All lessons	§110.43.b.4.F	Compile written ideas and representations into reports, summaries, or other formats and draw conclusions.
All lessons	§110.43.b.6.A	Expand vocabulary through wide reading, listening, and discussing.
All lessons	§110.43.b.6.B	Rely on context to determine meanings of words and phrases such as figurative language, idioms, multiple meaning words, and technical vocabulary.
All lessons	§110.43.b.7.B	Draw upon his/her own background to provide connection with texts.
All lessons	§110.43.b.7.F	Produce summaries of texts by identifying main ideas and their supporting details.
All lessons	§110.43.b.7.G	Draw inferences such as conclusions, generalizations, and predictions and support them with text evidence and experience.
3	§110.43.b.13.A	Generate relevant, interesting, and researchable questions.
5	§110.43.b.13.D	Produce reports and research projects in varying forms for audiences.
All lessons	§110.43.b.13.E	Draw conclusions from information gathered.

Texas Essential Knowledge and Skills for Health Education High School – Health I

Lesson	Standard	Description
4, 5	§115.32.b.2.A	Analyze the relationship between health promotion and disease prevention.
5	§115.32.b.2.B	Analyze the influence of laws, policies, and practices on health-related issues including those related to disease prevention.
1, 4	§115.32.b.4.B	Explain how technology has impacted the health status of individuals, families, communities, and the world.
4, 5	§115.32.b.5.D	Demonstrate decision-making skills based on health information.
1, 3, 4, 5	§115.32.b.6.A	Examine the effects of health behaviors on body systems.
1, 3, 4, 5	§115.32.b.7.A	Analyze the harmful effects of alcohol, tobacco, drugs, and other substances such as physical, mental, social, and legal consequences.
4, 5	§115.32.b.7.C	Develop strategies for preventing use of tobacco, alcohol, and other addictive substances.

TEXAS ALIGNMENT FOR NIH SUPPLEMENT THE BRAIN: UNDERSTANDING NEUROBIOLOGY THROUGH THE STUDY OF ADDICTION

3, 4, 5	§115.32.b.13.F	Explore methods for addressing critical-health issues.
3, 4, 5	§115.32.b.16.A	Identify decision-making skills that promote individual, family, and community health.
3, 4, 5	§115.32.b.17.B	Demonstrate knowledge about personal and family health concerns.
3, 4, 5	§115.32.b.17.C	Develop strategies to evaluate information relating to a variety of critical health issues.